

In the Claims

1-44 (canceled).

45 (currently amended). An isolated or purified polynucleotide:

- a) encoding a polypeptide comprising SEQ ID NO: 1;
- b) encoding a Human Leukocyte Antigen (HLA) binding fragment of SEQ ID NO: 1, wherein said HLA binding fragment comprises at least five consecutive amino acids of SEQ ID NO:1 and has a length selected from the group consisting of 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 amino acids an amino acid sequence selected from Lys-Thr-Asn-Lys-Trp-Glu-Asp-Ile-Tyr (SEQ ID NO:28), Lys-Ser-Ile-Tyr-Ile-Phe-Tyr-Thr-Tyr (SEQ ID NO:29), Gly-Thr-Phe-Thr-Phe-Gln-Asn-Met-Tyr (SEQ ID NO:30), Tyr-Phe-Glu-Cys-Ile-Met-Lys-Leu-Tyr (SEQ ID NO:32), Val-Tyr-Glu-Gly-Lys-Ile-Lys-Tyr (SEQ ID NO:33), Val-Val-Asp-Ile-Phe-Cys-Gly-Val-Gly-Tyr (SEQ ID NO:34), Phe-Ser-Ser-Ile-Asn-Thr-Tyr-Asp-Tyr (SEQ ID NO:35), Val-Ser-Asn-Val-Glu-Asp-Ser-Asn-Tyr (SEQ ID NO:36), or Asn-Ser-Asn-Tyr-Asn-Lys-Leu-Tyr (SEQ ID NO:37); or
- c) that is complementary along the full length of said polynucleotide of a) or b).

46 (previously presented). The isolated or purified polynucleotide according to claim 45, wherein said polynucleotide encodes said polypeptide comprising SEQ ID NO: 1.

47 (previously presented). The isolated or purified polynucleotide according to claim 45, wherein said polynucleotide encodes said HLA binding fragment.

48 (previously presented). The isolated or purified polynucleotide according to claim 45, wherein said polynucleotide is complementary along the full length of said polynucleotide of a).

49 (previously presented). The isolated or purified polynucleotide according to claim 45,

wherein said polynucleotide is complementary along the full length of said polynucleotide of b).

50 (currently amended). A vector comprising a promoter operably linked to a polynucleotide:

a) encoding a polypeptide comprising SEQ ID NO: 1;

b) encoding a Human Leukocyte Antigen (HLA) binding fragment of SEQ ID NO: 1, wherein said HLA binding fragment comprises at least five consecutive amino acids of SEQ ID NO:1 and has a length selected from the group consisting of 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 amino acids an amino acid sequence selected from Lys-Thr-Asn-Lys-Trp-Glu-Asp-Ile-Tyr (SEQ ID NO:28), Lys-Ser-Ile-Tyr-Ile-Phe-Tyr-Thr-Tyr (SEQ ID NO:29), Gly-Thr-Phe-Thr-Phe-Gln-Asn-Met-Tyr (SEQ ID NO:30), Tyr-Phe-Glu-Cys-Ile-Met-Lys-Leu-Tyr (SEQ ID NO:32), Val-Tyr-Glu-Gly-Lys-Ieu-Lys-Lys-Tyr (SEQ ID NO:33), Val-Val-Asp-Leu-Phe-Cys-Gly-Val-Gly-Tyr (SEQ ID NO:34), Phe-Ser-Scr-Ile-Asn-Thr-Tyr-Asp-Tyr (SEQ ID NO:35), Val-Ser-Asn-Val-Glu-Asp-Ser-Asn-Tyr (SEQ ID NO:36), or Asn-Ser-Asn-Tyr-Asn-Lys-Leu-Tyr (SEQ ID NO:37); or

c) that is complementary along the full length of said polynucleotide of a) or b).

51 (previously presented). The vector according to claim 50, wherein said polynucleotide encodes said polypeptide comprising SEQ ID NO: 1.

52 (previously presented). The vector according to claim 50, wherein said polynucleotide encodes said HLA binding fragment.

53 (previously presented). The vector according to claim 50, wherein said polynucleotide is complementary along the full length of said polynucleotide of a).

54 (previously presented). The vector according to claim 50, wherein said polynucleotide is complementary along the full length of said polynucleotide of b).

55 (currently amended). An isolated transformed host cell comprising a polynucleotide:

- a) encoding a polypeptide comprising SEQ ID NO: 1;
- b) encoding a Human Leukocyte Antigen (HLA) binding fragment of SEQ ID NO: 1, wherein said HLA binding fragment comprises at least five consecutive amino acids of SEQ ID NO:1 and has a length selected from the group consisting of 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 amino acids an amino acid sequence selected from Lys-Thr-Asn-Lys-Trp-Glu-Asp-Ile-Tyr (SEQ ID NO:28), Lys-Ser-Ile-Tyr-Ile-Phe-Tyr-Thr-Tyr (SEQ ID NO:29), Gly-Thr-Phe-Thr-Phe-Gln-Asn-Met-Tyr (SEQ ID NO:30), Tyr-Phe-Glu-Cys-Ile-Met-Lys-Leu-Tyr (SEQ ID NO:32), Val-Tyr-Glu-Gly-Lys-Leu-Lys-Tyr (SEQ ID NO:33), Val-Val-Asp-Leu-Phe-Cys-Gly-Val-Gly-Tyr (SEQ ID NO:34), Phe-Ser-Ser-Ile-Asn-Thr-Tyr-Asp-Tyr (SEQ ID NO:35), Val-Ser-Asn-Val-Glu-Asp-Ser-Asn-Tyr (SEQ ID NO:36), or Asn-Ser-Asn-Tyr-Asn-Lys-Lys-Leu-Tyr (SEQ ID NO:37); or
- c) that is complementary along the full length of said polynucleotide of a) or b).

56 (previously presented). The isolated transformed host cell according to claim 55, wherein said polynucleotide encodes said polypeptide comprising SEQ ID NO: 1.

57 (previously presented). The isolated transformed host cell according to claim 55, wherein said polynucleotide encodes said HLA binding fragment.

58 (previously presented). The isolated transformed host cell according to claim 55, wherein said polynucleotide is complementary along the full length of said polynucleotide of a).

59 (previously presented). The isolated transformed host cell according to claim 55, wherein said polynucleotide is complementary along the full length of the polynucleotide of b).

60 (currently amended). The isolated transformed host cell according to claim 55, wherein said polynucleotide is a vector comprising a promoter operably linked to a polynucleotide:

- a) encoding a polypeptide comprising SEQ ID NO: 1;

b) encoding a Human Leukocyte Antigen (HLA) binding fragment of SEQ ID NO: 1, wherein said HLA binding fragment comprises at least five consecutive amino acids of SEQ ID NO:1 and has a length selected from the group consisting of 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 amino acids an amino acid sequence selected from Lys-Thr-Asn-Lys-Trp-Glu-Asp-Ile-Tyr (SEQ ID NO:28), Lys-Ser-Ile-Tyr-Ile-Phe-Tyr-Thr-Tyr (SEQ ID NO:29), Gly-Thr-Phe-Thr-Phe-Gln-Asn-Met-Tyr (SEQ ID NO:30), Tyr-Phe-Glu-Cys-Ile-Met-Lys-Leu-Tyr (SEQ ID NO:32), Val-Tyr-Glu-Gly-Lys-Leu-Lys-Lys-Tyr (SEQ ID NO:33), Val-Val-Asp-Leu-Phe-Cys-Gly-Val-Gly-Tyr (SEQ ID NO:34), Phe-Ser-Ser-Ile-Asn-Thr-Tyr-Asp-Tyr (SEQ ID NO:35), Val-Ser-Asn-Val-Glu-Asp-Ser-Asn-Tyr (SEQ ID NO:36), or Asn-Ser-Asn-Tyr-Asn-Lys-Lys-Leu-Tyr (SEQ ID NO:37); or

c) that is complementary along the full length of said polynucleotide of a) or b).

61 (previously presented). The isolated transformed host cell according to claim 60, wherein said polynucleotide encodes said polypeptide comprising SEQ ID NO: 1.

62 (previously presented). The isolated transformed host cell according to claim 60, wherein said polynucleotide encodes said HLA binding fragment.

63 (previously presented). The isolated transformed host cell according to claim 60, wherein said polynucleotide is complementary along the full length of said polynucleotide of a).

64 (previously presented). The isolated transformed host cell according to claim 60, wherein said polynucleotide is complementary along the full length of said polynucleotide of b).

65 (withdrawn). A method of making a polypeptide comprising culturing an isolated transformed host cell according to claim 55 under conditions that allow for the production of said polypeptide.

66-69 (cancelled).

70 (new). The isolated or purified polynucleotide according to claim 45, wherein said polynucleotide encodes said HLA binding fragment, and wherein said HLA binding fragment has a length selected from the group consisting of 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 amino acids.

71 (new). The vector according to claim 50, wherein said polynucleotide encodes said HLA binding fragment, and wherein said HLA binding fragment has a length selected from the group consisting of 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 amino acids.

72 (new). The isolated transformed host cell according to claim 55, wherein said polynucleotide encodes said HLA binding fragment, and wherein said HLA binding fragment has a length selected from the group consisting of 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 amino acids.

73 (new). The isolated transformed host cell according to claim 60, wherein said polynucleotide encodes said HLA binding fragment, and wherein said HLA binding fragment has a length selected from the group consisting of 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 amino acids.

74 (new). The isolated or purified polynucleotide according to claim 45, wherein said polynucleotide encodes said HLA binding fragment, and wherein said HLA binding fragment consists of an amino acid sequence selected from Lys-Thr-Asn-Lys-Trp-Glu-Asp-Ile-Tyr (SEQ ID NO:28), Lys-Ser-Ile-Tyr-Ile-Phe-Tyr-Thr-Tyr (SEQ ID NO:29), Gly-Thr-Phe-Thr-Phe-Gln-Asn-Met-Tyr (SEQ ID NO:30), Tyr-Phe-Glu-Cys-Ile-Met-Lys-Leu-Tyr (SEQ ID NO:32), Val-Tyr-Glu-Gly-Lys-Leu-Lys-Lys-Tyr (SEQ ID NO:33), Val-Val-Asp-Leu-Phe-Cys-Gly-Val-Gly-Tyr (SEQ ID NO:34), Phe-Ser-Ser-Ile-Asn-Thr-Tyr-Asp-Tyr (SEQ ID NO:35), Val-Ser-Asn-Val-Glu-Asp-Ser-Asn-Tyr (SEQ ID NO:36), or Asn-Ser-Asn-Tyr-Asn-Lys-Lys-Leu-Tyr (SEQ ID NO:37).

75 (new). The vector according to claim 50, wherein said polynucleotide encodes said HLA binding fragment, and wherein said HLA binding fragment consists of an amino acid sequence selected from Lys-Thr-Asn-Lys-Trp-Glu-Asp-Ile-Tyr (SEQ ID NO:28), Lys-Ser-Ile-Tyr-Ile-Phe-Tyr-Thr-Tyr (SEQ ID NO:29), Gly-Thr-Phe-Thr-Phe-Gln-Met-Tyr (SEQ ID NO:30), Tyr-Phe-Glu-Cys-Ile-Met-Lys-Leu-Tyr (SEQ ID NO:32), Val-Tyr-Glu-Gly-Lys-Leu-Lys-Tyr (SEQ ID NO:33), Val-Val-Asp-Leu-Phe-Cys-Gly-Val-Gly-Tyr (SEQ ID NO:34), Phe-Ser-Ser-Ile-Asn-Thr-Tyr-Asp-Tyr (SEQ ID NO:35), Val-Ser-Asn-Val-Glu-Asp-Ser-Asn-Tyr (SEQ ID NO:36), or Asn-Ser-Asn-Tyr-Asn-Lys-Leu-Tyr (SEQ ID NO:37).

76 (new). The isolated transformed host cell according to claim 55, wherein said polynucleotide encodes said HLA binding fragment, and whercin said HLA binding fragment consists of an amino acid sequence selected from Lys-Thr-Asn-Lys-Trp-Glu-Asp-Ile-Tyr (SEQ ID NO:28), Lys-Ser-Ile-Tyr-Ile-Phe-Tyr-Thr-Tyr (SEQ ID NO:29), Gly-Thr-Phe-Thr-Phe-Gln-Met-Tyr (SEQ ID NO:30), Tyr-Phe-Glu-Cys-Ile-Met-Lys-Leu-Tyr (SEQ ID NO:32), Val-Tyr-Glu-Gly-Lys-Leu-Lys-Tyr (SEQ ID NO:33), Val-Val-Asp-Leu-Phe-Cys-Gly-Val-Gly-Tyr (SEQ ID NO:34), Phe-Ser-Ser-Ile-Asn-Thr-Tyr-Asp-Tyr (SEQ ID NO:35), Val-Ser-Asn-Val-Glu-Asp-Ser-Asn-Tyr (SEQ ID NO:36), or Asn-Ser-Asn-Tyr-Asn-Lys-Leu-Tyr (SEQ ID NO:37).

77 (new). The isolated transformed host cell according to claim 60, wherein said polynucleotide encodes said HLA binding fragment, and wherein said HLA binding fragment consists of an amino acid sequence selected from Lys-Thr-Asn-Lys-Trp-Glu-Asp-Ile-Tyr (SEQ ID NO:28), Lys-Ser-Ile-Tyr-Ile-Phe-Tyr-Thr-Tyr (SEQ ID NO:29), Gly-Thr-Phe-Thr-Phe-Gln-Met-Tyr (SEQ ID NO:30), Tyr-Phe-Glu-Cys-Ile-Met-Lys-Leu-Tyr (SEQ ID NO:32), Val-Tyr-Glu-Gly-Lys-Leu-Lys-Tyr (SEQ ID NO:33), Val-Val-Asp-Leu-Phe-Cys-Gly-Val-Gly-Tyr (SEQ ID NO:34), Phe-Ser-Ser-Ile-Asn-Thr-Tyr-Asp-Tyr (SEQ ID NO:35), Val-Ser-Asn-Val-Glu-Asp-Ser-Asn-Tyr (SEQ ID NO:36), or Asn-Ser-Asn-Tyr-Asn-Lys-Leu-Tyr (SEQ ID NO:37).